CONFIDENTIAL A

MT6761 Design Notice V0.4

Change List

Version	Date	Description
V0.1	2017.12.25	1. 1st release
V0.2	2018.02.06	1. Modified Feature Table [P3] 2. Added Page5 for CAP Design Difference [P5]
V0.3	2018.03.05	1. Added Power Design Difference [P6]
V0.4	2018.05.14	1. Added PMIC Part Number Difference [P2, 4 & 6]

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MT6761 Design Notice

- Please refer to MT6765_62 Design Package directly for MT6761
  - MT6765_62 Design Notice
  - MT6765_62 PCB Layout / PDN / MMD / SMT Guide
  - MT6765_62 SCH and PCB Design Check List
  - MT6765_62_GPIO_Formal_Application_Spec
  - MT6765_62_Reference Schematic

- There are some differences between MT6765_62 & MT6761
  - Feature Difference
  - PMIC Part Number Difference
  - CAP Design Difference for VREFCA/VREFDQ of LP3
  - Power Design Difference

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Feature Difference between MT6761 & MT6765_62

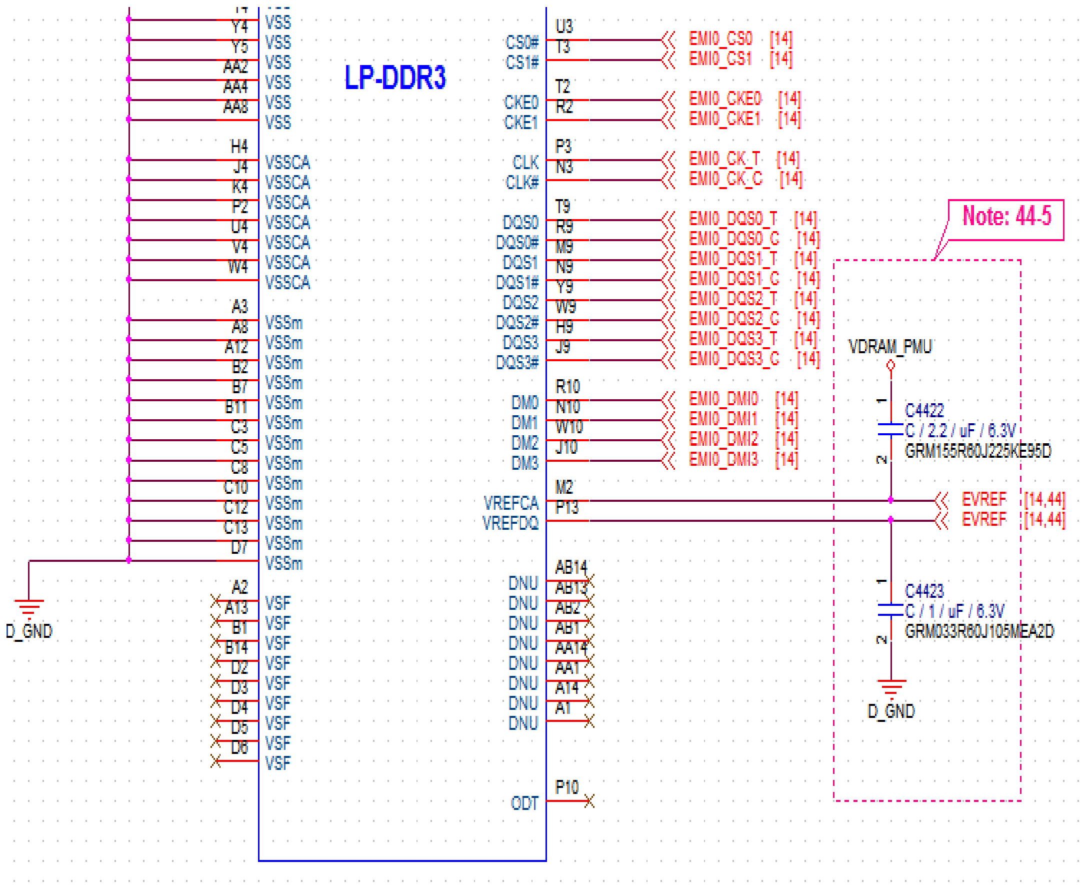
	MT6761	MT6762	MT6765
Process	14nm	12nm	12nm
CPU	4 x A53 @ 2.0GHz	4xA53 2.0GHz 4xA53 1.5GHz	4xA53 2.3GHz 4xA53 1.8GHz
GPU	IMG GE8300 @ 660 MHz	IMG GE8320 650MHz	IMG GE8320 680MHz
Memory	1xLPDDR3 933MHz, up to 4GB 2xLPDDR4x 1600MHz, up to 4GB	1xLPDDR3 933MHz, up to 4GB 2xLPDDR4x 1600MHz, up to 6GB	1xLPDDR3 933MHz, up to 4GB 2xLPDDR4x 1600MHz, up to 6GB
Storage	eMMC5.1	eMMC 5.1	eMMC 5.1
ISP	21MP @ 30fps 13MP+8MP@30fps (LP3/LP4x) MIPI: 4+4+4/4+4+2+2 SW dual cam	21MP@30fps 13MP+8MP@30fps (LP3/LP4x) MIPI Lane : 4+4+4 / 4+4+2+2 HW dual cam	25MP@30fps 13MP+13MP@30fps (LP4x) MIPI Lane : 4+4+4 / 4+4+2+2 HW dual cam
video encode	1080P @ 30 fps, H.264	1080P @ 30 fps, H.264	1080P @ 30 fps, H.264
video decode	1080P @ 30 fps, H.264/H.265	1080P @ 30 fps, H.264/H.265	1080P @ 30 fps, H.264/H.265
Display	HD+ 1600x720 (20:9)	HD+ 1600x720 (20:9)	FHD+ 2400x1080 (20:9)
Modem	Cat-4 / 7 L+W/L+L , C2K SRLTE	Cat-4 / 7 L+W/L+L , C2K SRLTE	Cat-7 L+W/L+L , C2K SRLTE
Connectivity	WiFi 802.11 ac/abgn, BT5.0, FM RX GPS+Glonass+Beidou+Galileo	WiFi 802.11 ac/abgn, BT5.0, FM Rx GPS+Glonass+Beidou+Galileo	WiFi 802.11 ac/abgn, BT5.0, FM Rx GPS+Glonass+Beidou+Galileo
Sensor hub	Yes	Yes	Yes

PMIC Part Number Difference between MT6761 & MT6765_62

SoC	MT6765/62	MT6761	MT6739
PMIC	MT6357 **CRV**	MT6357 **MRV**	MT6357 V

CAP Design Difference between MT6761 & MT6765_62

- **CAP Design Difference for VREFCA/VREFDQ of LP3**

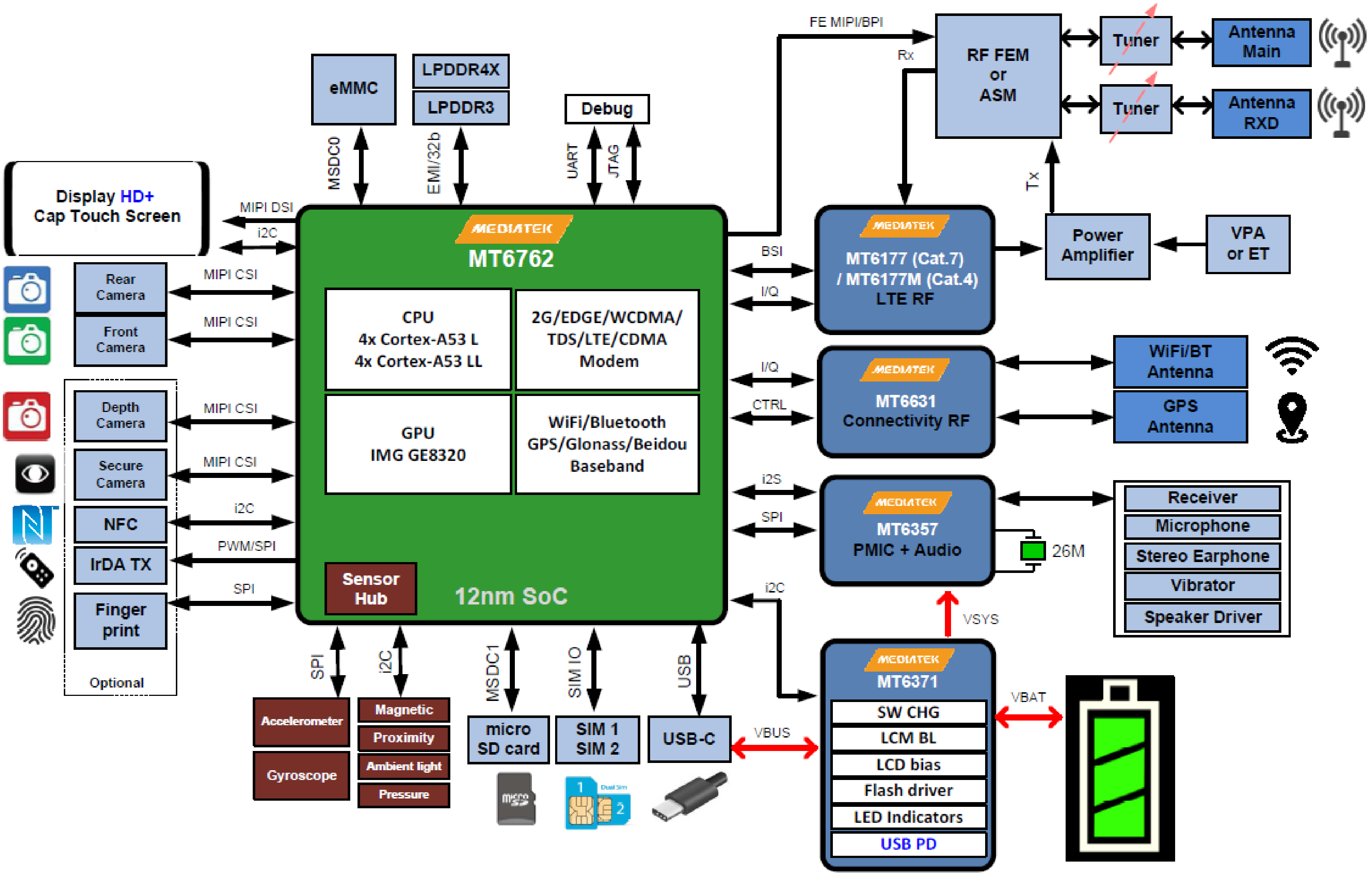


Project	C4422	C4423
MT6765	2.2uF	1uF
MT6762	2.2uF	1uF
MT6761	0.1uF	0.1uF

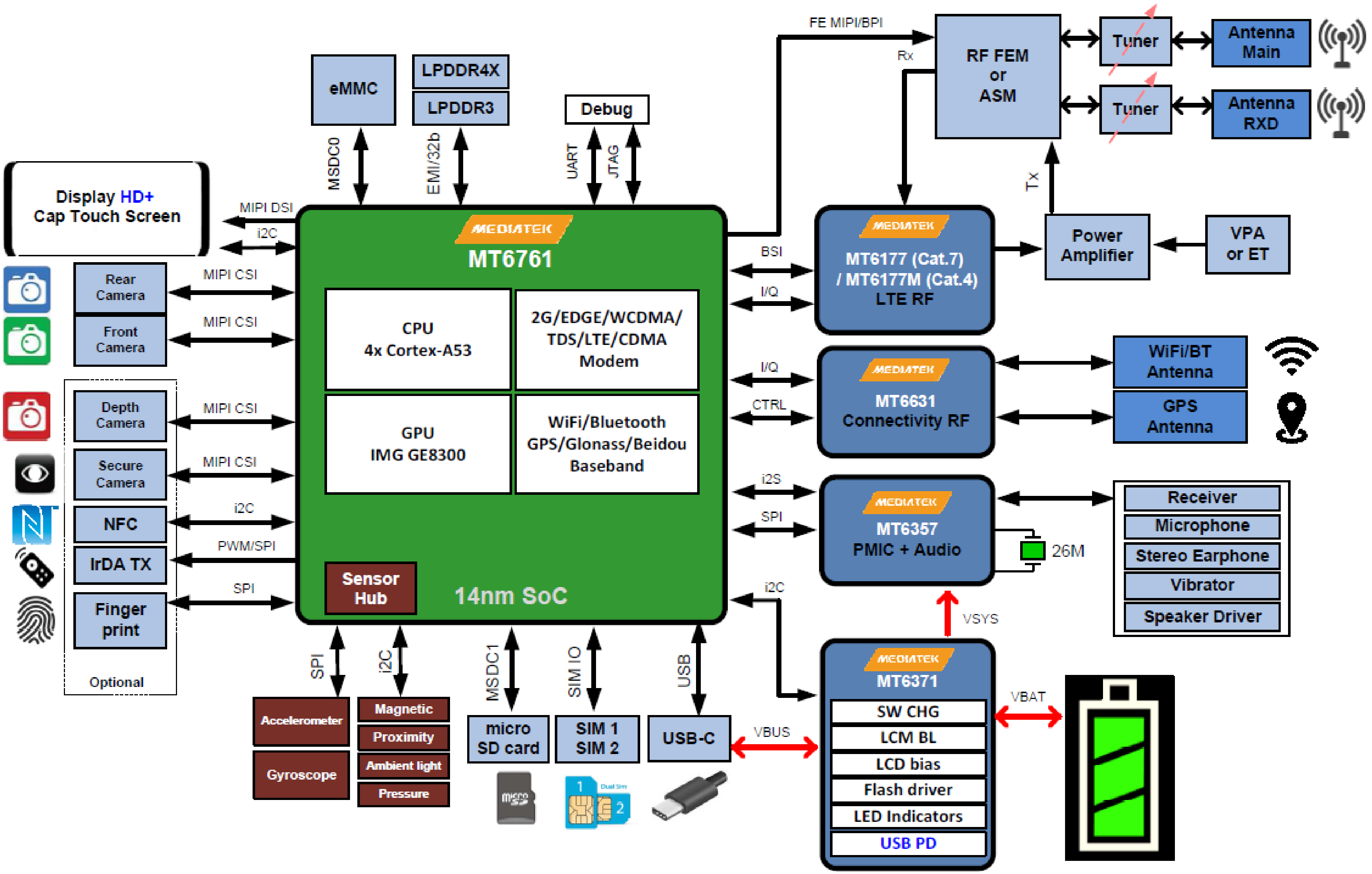
Power Design Difference between MT6761 & MT6765_62

Function	Reference Schematic P/N	MT6761	MT6762	MT6765
Main PMIC	MT6357	Must(MT6357MRV)	Must(MT6357CRV)	Must(MT6357CRV)
Sub PMIC	MT6371	Optional	Must	Must
Ext. VS2 Buck	MT6690N/A	Optional	Must	Must
Ext. VA12 LDO	MT6680P/A	Must	Must	Must
Ext. VCN33 LDO	NCP186AMX330TAG/ RP115L331D	Must for support WIFI 5G Optional for only support WIFI 2.4G	Must for support WIFI 5G Optional for only support WIFI 2.4G	Must for support WIFI 5G Optional for only support WIFI 2.4G
Ext. LP4x Buck	MT6691OOP/A (1.125V)	Must for LP4x Project	Must for LP4x Project	Must for LP4x Project
Ext. LP4x Buck	MT6691ZXP/A (0.6V)	Must for LP4x Project	Must for LP4x Project	Must for LP4x Project
Ext. LP4x LDO for VDD1	NCP114AMX180TBG(1.8V)	Must for LP4x Project	Must for LP4x Project	Must for LP4x Project

MT6762 System Block



MT6761 System Block



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